Final "As-Built" Plans
Using BlueBeam

Office of Construction
Final Estimates

Overview of Discussion Topics:

- Toolbars, Views, Search, Panels
- Extract pages
- Add Text
- Properties, Lock Markups, Subject, Construction Remarks
- Cloud Tool
- Insert page
- Stamps
- Measure Tools
- Embed back-up documentation
- Check Mark
- Summary of Markups
- As-Built Signature Sheet
- Digital Signature/Certification
- DFEO Markup and Validation

http://www.dot.state.fl.us/construction/

Office Resources

About us

Divisions

Documents & Publications

Programs & Services

Meetings & Events

More...

Most Requested

Design Build

Manuals

Engineering Areas

Contractor Issues

Training

More...

Welcome

The Office of Construction is committed t

News

Contractor QC Plan worksheet
Posted: July 17, 2015

2015 Estimate Cut-Off Dates
Posted: Nov. 3, 2013

Process Review Schedule
Posted: September 19, 2014

2015/2016 Letting Dates Updated
Posted: July 11, 2014

Latest Monthly Estimates Available
Posted: On-going

View Recently Updated Construction Re
Posted: On-going

http://www.dot.state.fl.us/construction/

Office of Construction
Training

Topics

Construction Training & Qualification Program (CTQP)

CTQP Information & Providers

Reduced Cost CTQP Training for Small Businesses

CTQP Website

CTQP's Technical Review Teams (TRT)

Sample TRT Meeting Notice **DOT Users Only**

General Information

Construction Training Manual (CTQM)

District Construction Training Administrators

Training Related Information

Meeting Minutes or Training Memos

Schedules (Construction Training)

Training Video Shorts

CBT Request Form

Trainee Privacy Statement

http://www.dot.state.fl.us/construction/

Office of Construction / Training
Training Video Shorts

Maintenance of Traffic	Structures
Drainage and Environmental	**Geotechnical**
	Sound Barrier-Noise Wall Construction
	Pump Calibration for Auger Cast Piles
Asphalt and Concrete Paving	**Contractor Prequalification**
Contractor Past Performance Rating	**Alternate Contracting**
Contract Modifications	**Final Estimates**
	BlueBeam Training FAQ

BlueBeam: Help/Resources
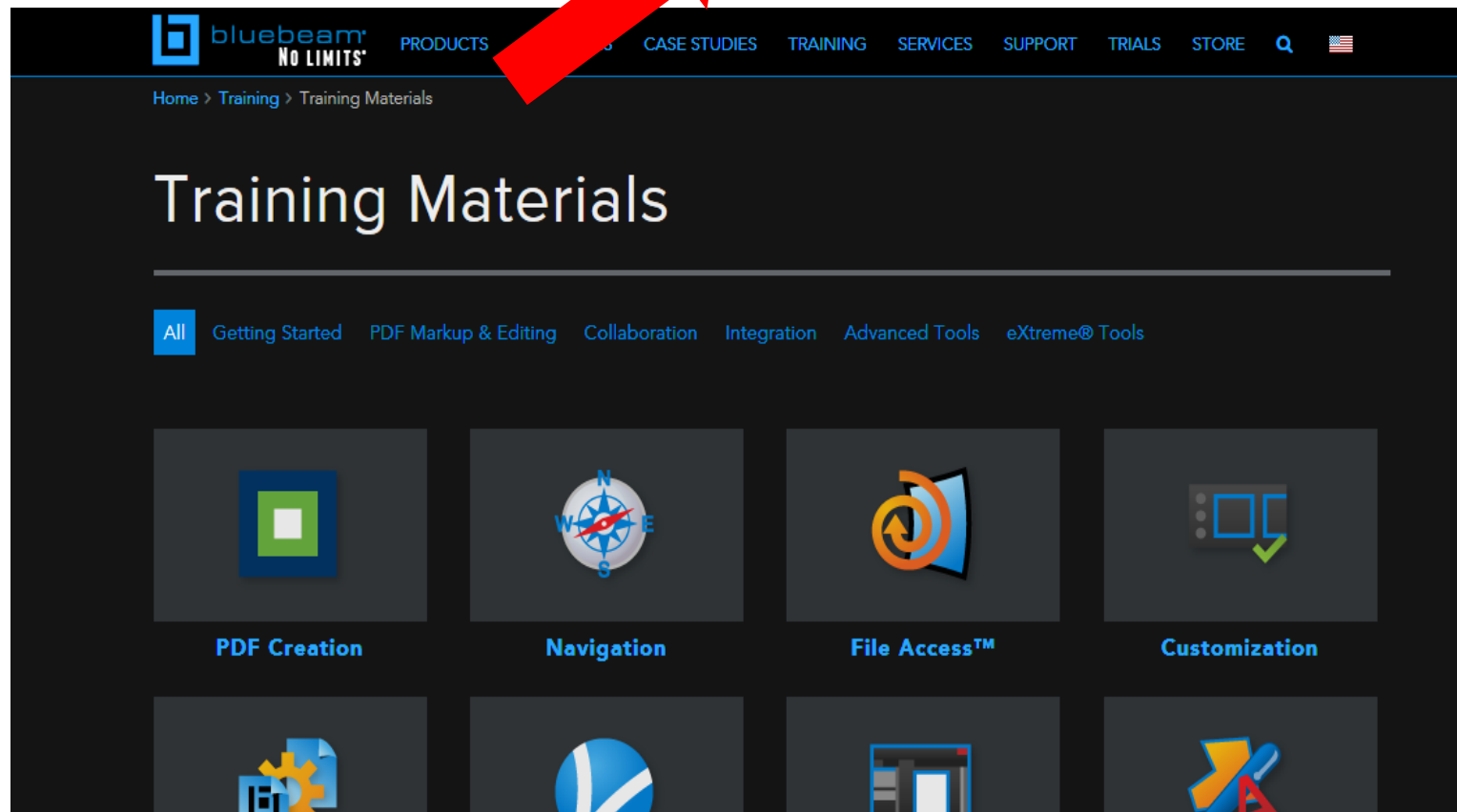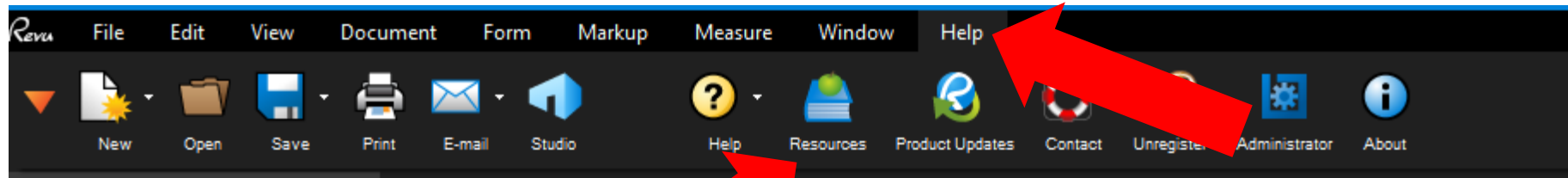
Word Search (OCR)
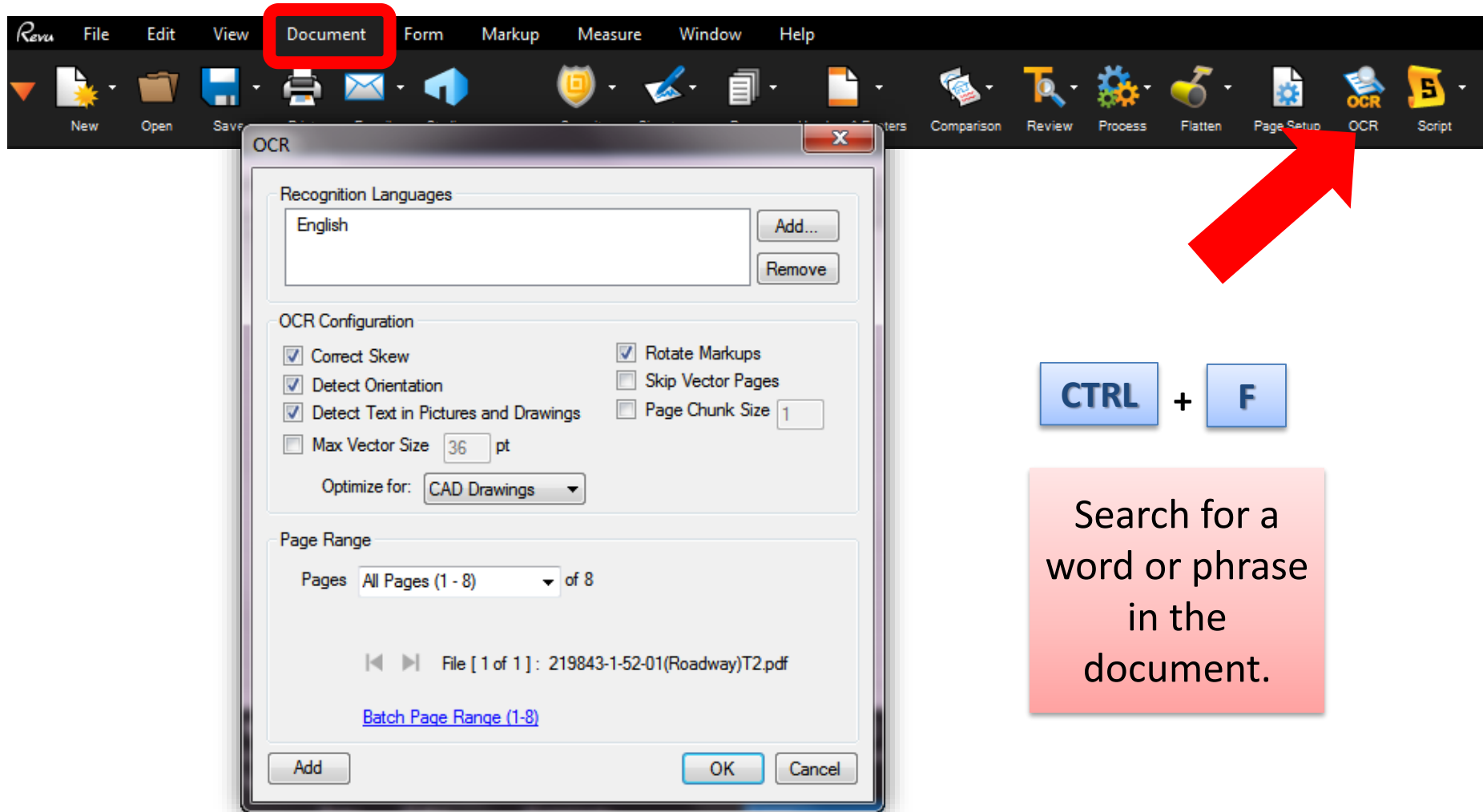
CTRL + F

Search for a word or phrase in the document.

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BlueBeam: Panels

Recent files, Tool Chest, Bookmarks, etc.

Properties Panel

Markup Panel

Extract Pages

Signed and sealed Contact Plans, revisions to Contract Plans, and/or As-Built drawings (such as Surface Water Management per Spec. 7-2.3.1, Directional Bore per Spec. 555, Traffic Control Signals and Devices per Spec.611, etc.) must be **extracted** in order to insert these into the Final "As-Built" plans.

- Select "Document" or "Thumbnails"
- Right-click
- Select "Extract Pages"
- Select location to save file
- Copy or insert pages into the Final "As-Built" Plans set. (See next slide.)

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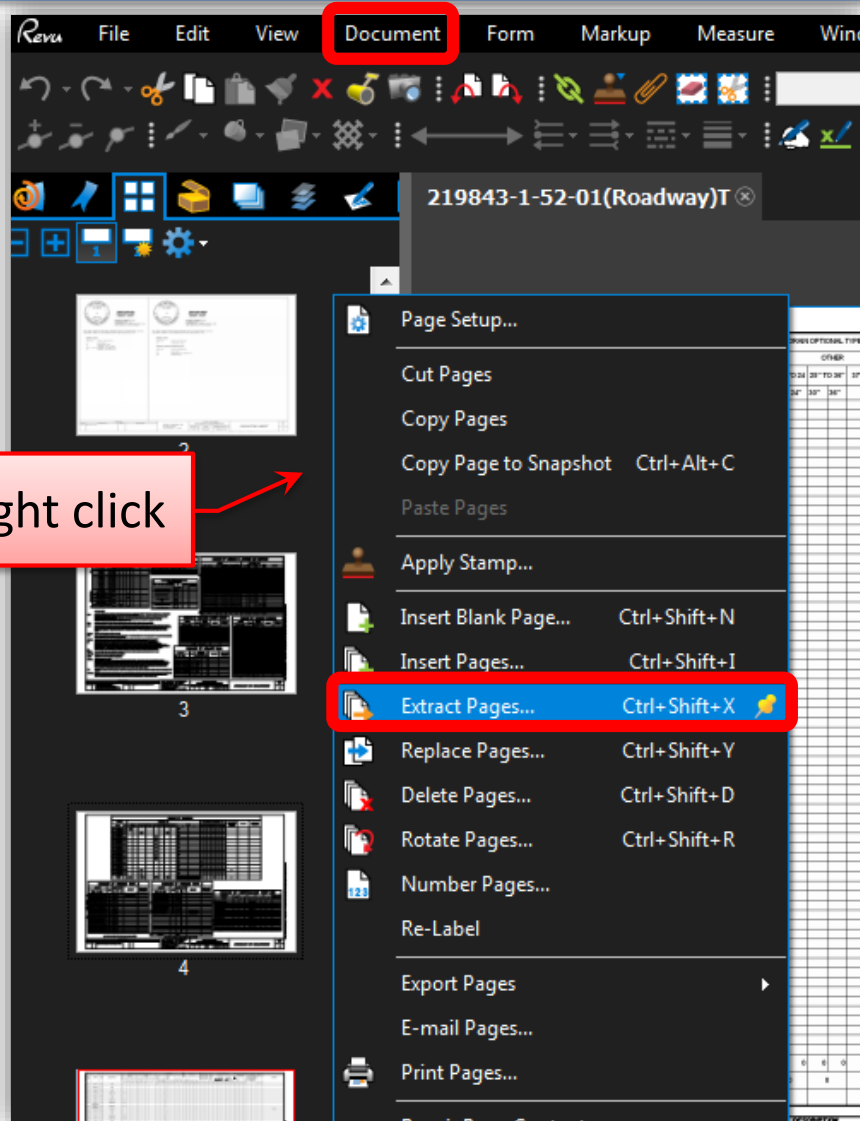
Extract Pages (Cont.)

Right click

Leave unchecked to save all extracted pages as one PDF file.
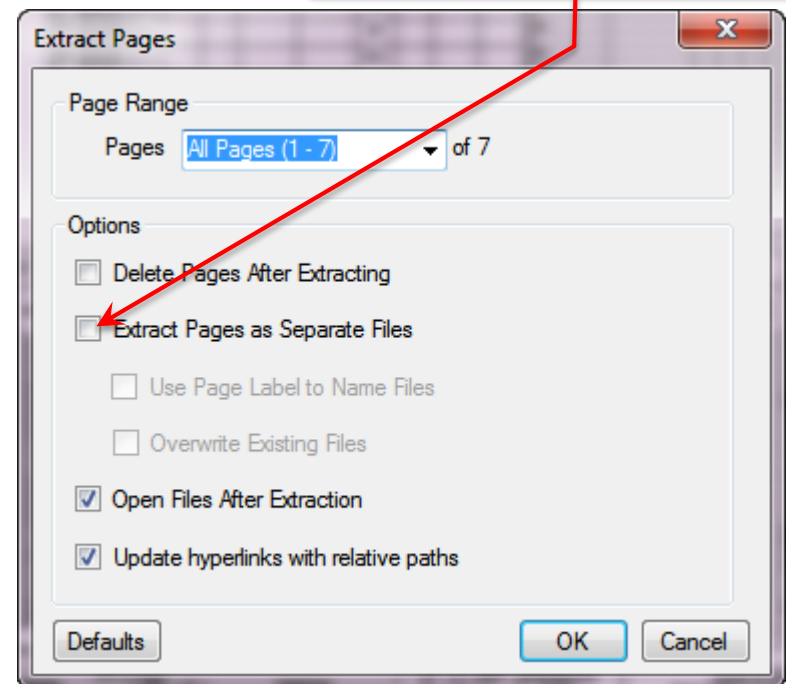
Plans Components

It is recommended that As-Built Plans be saved into components.

If Contract Plans were not separated into components, this can be done by selecting the plans sheets, **extracting** and saving into separate folders.

Documents library
As-Built Plans

Name

📁 Roadway
📁 Signalization
📁 Signing and Pvmt Marking
📁 Structures

- Select "Document" or "Thumbnails"
- Right-click
- Select "Extract Pages"
- Select location to save file
  (See previous slide.)

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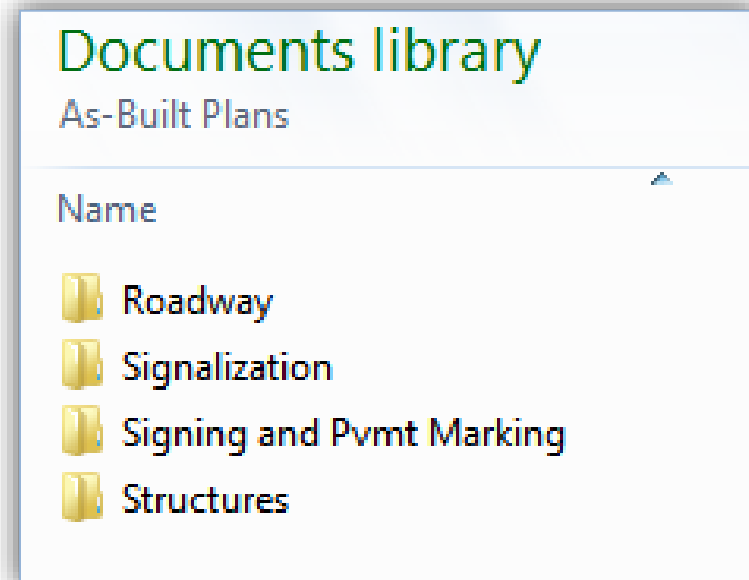
Insert Text
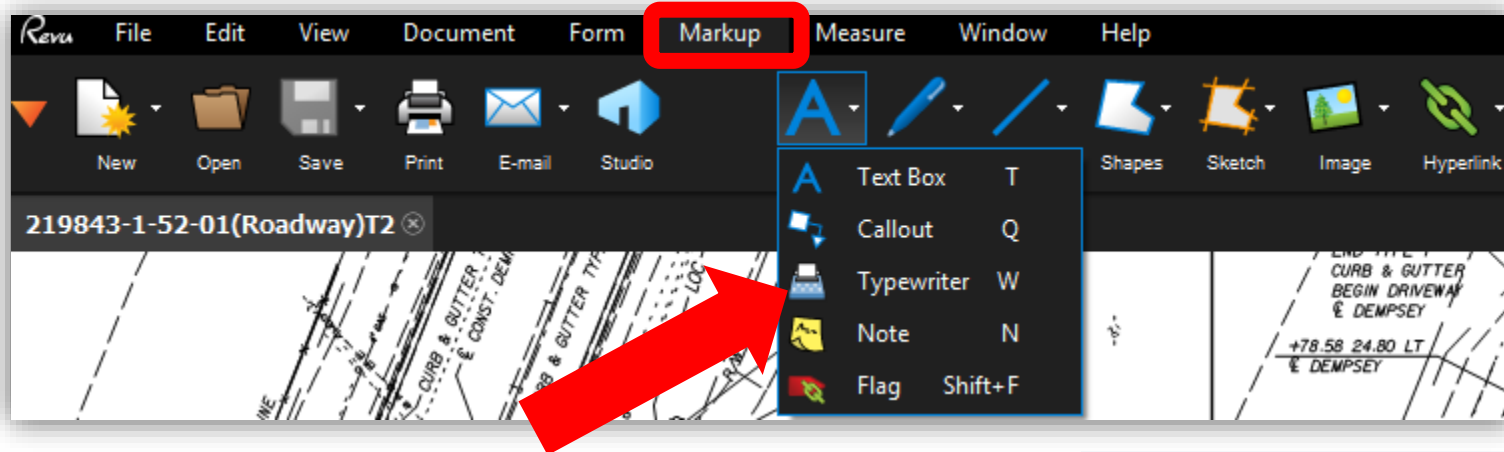
Or select the "Typewriter" icon on the side menu.
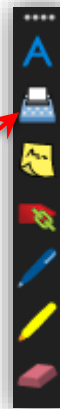
Avoid using the "Text Box", as this will create a "box" that will block any text or lines behind the box, and will require more formatting.

Adjust the font type, size and color in the Properties panel.

Lock Markups

- Lock the markups:
  - Avoid "accidental" deletions of markups
  - Can be done in the Properties panel or in the Markup panel

Subject	Page	Lock	Checkmark	Author	Date	Color	Comments
Checkmark	Page 1	☐	☐	CN982MI	8/24/2015 12:44:37 PM	■	
Final As-Built Plans (1)							
Final As-Built Plans	Page 1	🔒	■	CN982MI	8/24/2015 1:00:22 PM	■	Final "As-Built" Plans
Line (1)							

Subject

- Subject:
  - Allows to "name" the markup. This is how the markup will be listed in the Summary of markups (below).
  - Can be done in the Property panel or in the Markup panel

Construction Remarks and Sheet Description

- Can be done in the Properties panel or in the Markup panel

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Insert Cloud

Or select the "Cloud" icon on the side menu.

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Notes (during internal review)

Electronic Notes may be added during an internal review. These notes must be removed from the Final "As-Built" Plan set before submission to the DFEO.
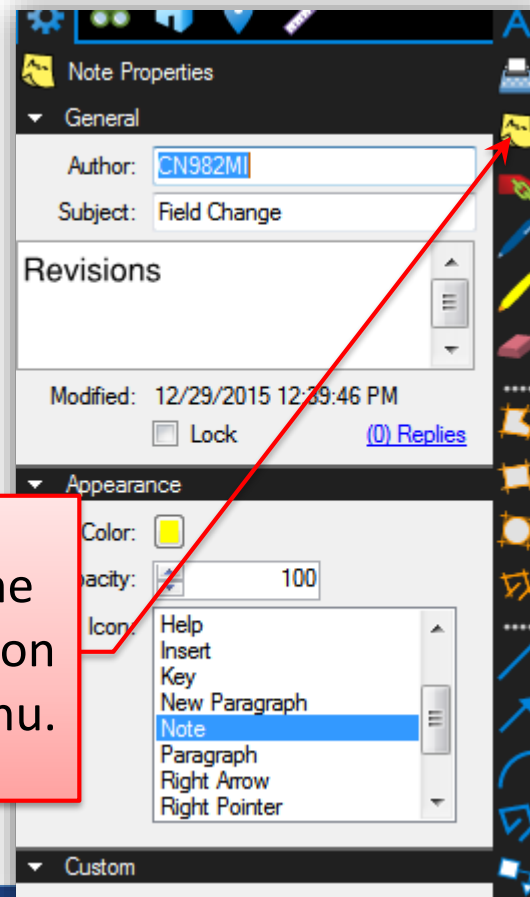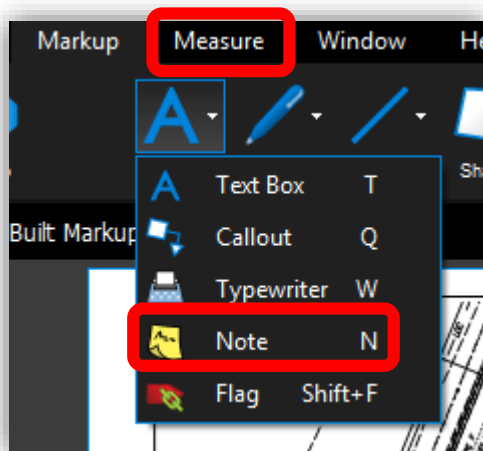
Or select the "Note" icon on the side menu.
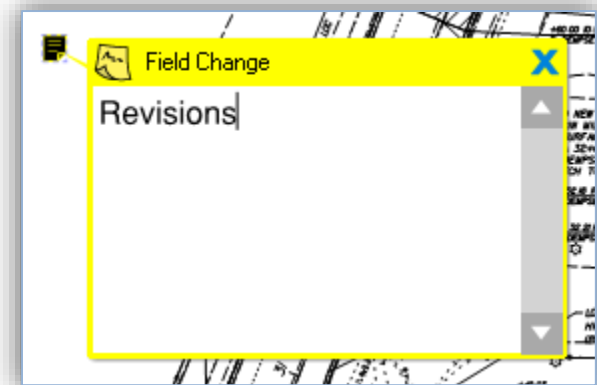
Insert Page

Follow these steps to insert sheets from Extracted files or the Final As-Built Signature Sheet into the Final "As-Built" plans:

Insert single or multiple pages:

- Select "Document" or "Thumbnails"
- Right-click
- Select "Insert Pages"
- Select file to insert

Right-Click
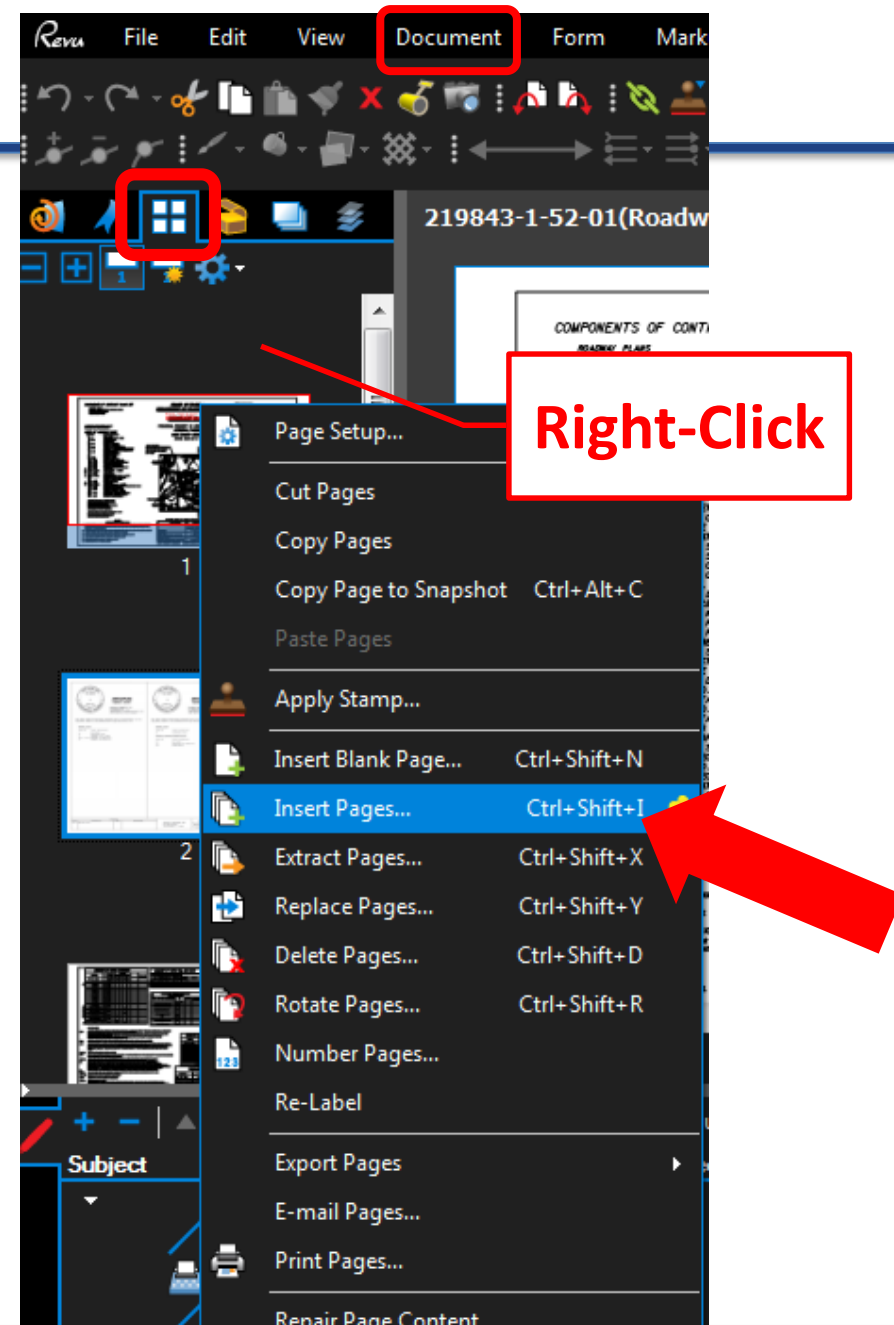
Insert Page (cont.)

Select file to insert
- Click "Add"
- Select file
- Click "Open"

Select the destination of the sheets to insert in the dialog box or "drag and move" the thumbnails to the correct location.

Create Stamp

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Create Stamp (Cont.)

- A new "Tab" will open
- Type the text for the stamp (Ex.: VOID)
- In the Properties Panel:
  - "Name" the Subject
  - Select the font, size, rotation angle, Subject, etc.
  - Lock
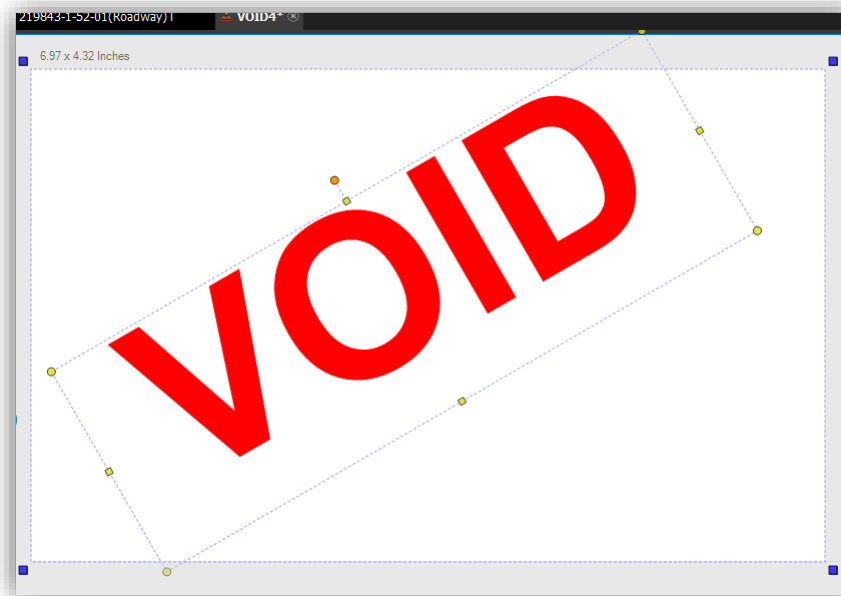
Create Stamp (Cont.)

- In the Left Panel, select "Tool Chest"
  - Look up the recently used tools
  - Right-click
  - Select "Add Item to My Tools"
  - Select Item from the "My Tools" to reuse. No need to re-create the stamp. Can create any stamp.
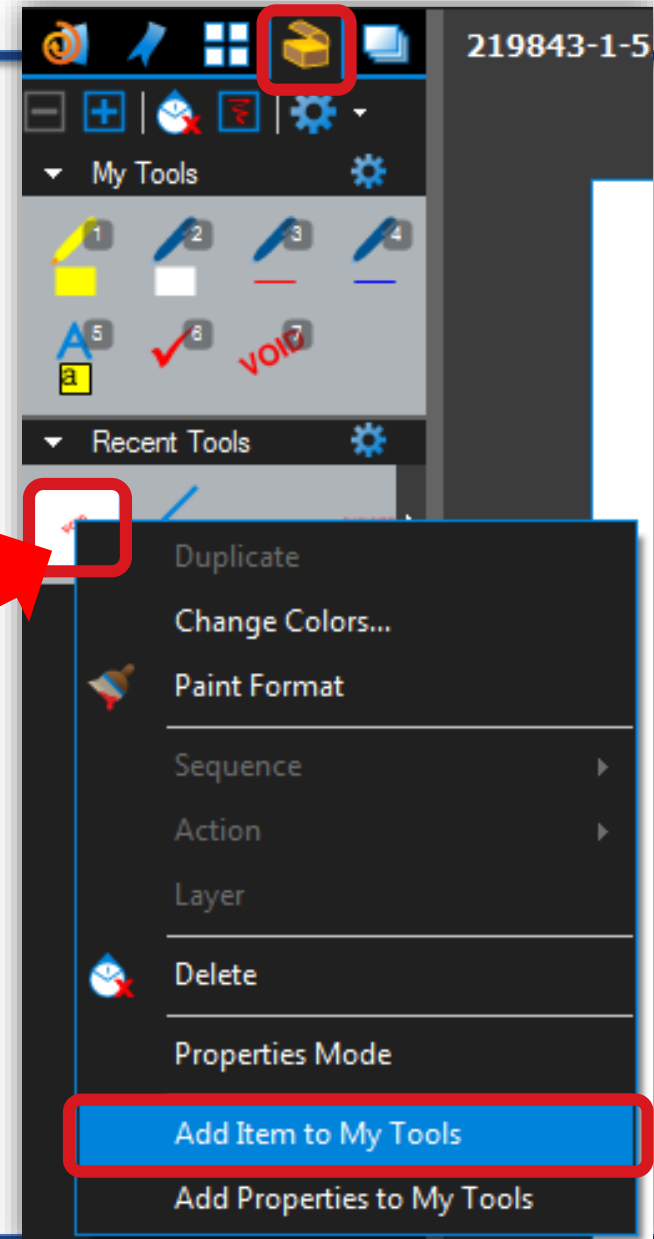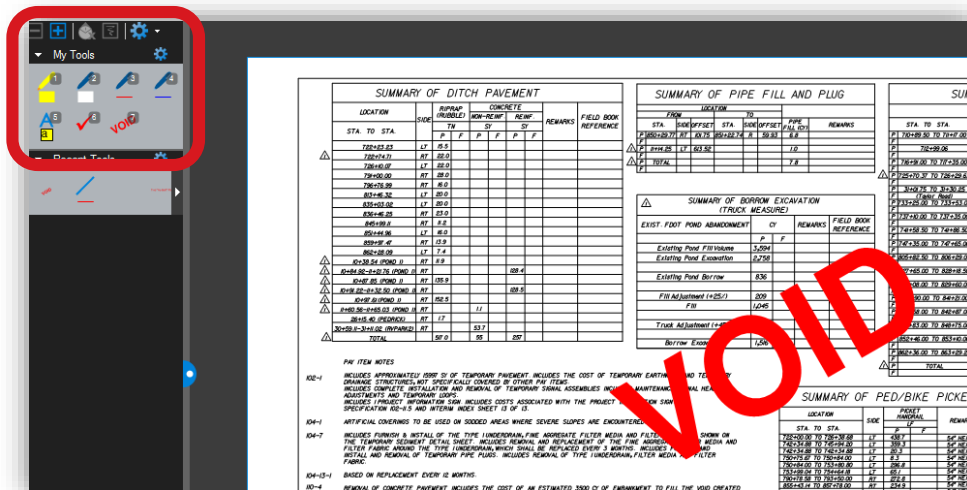
Measure
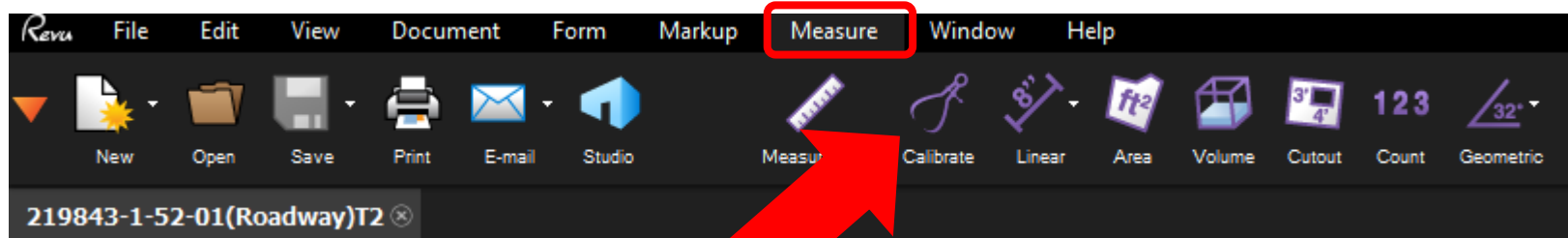
NOTE: Calibrate before using these tools. If measuring on sheet with different scale, calibrate again.

Measure: Calibrate

1. Select a known distance
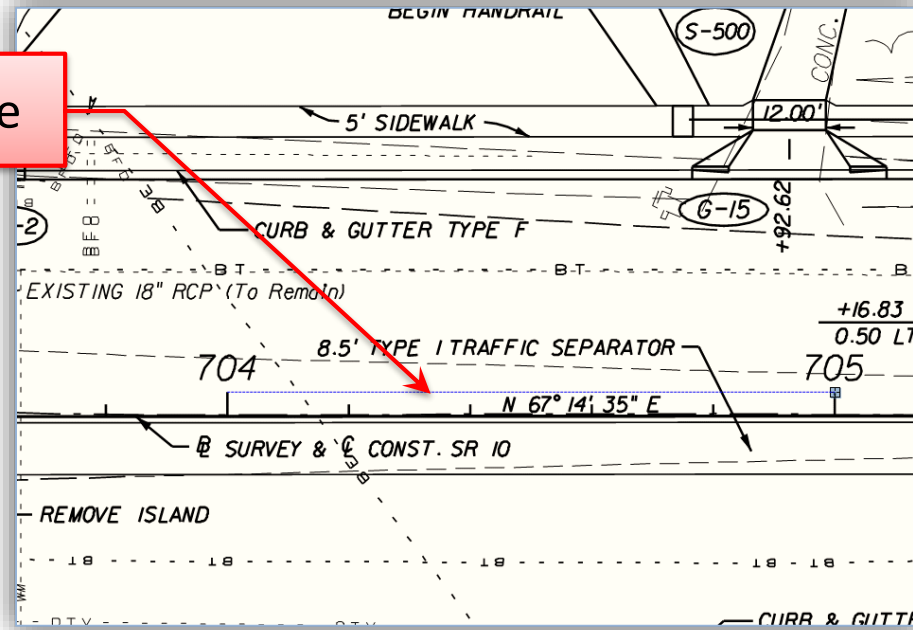
2. Verify and enter desired number of decimal places.

Calibration

Enter measurement between the two points.

100.00 ft | ft ▼ | (Measured 2.50 in)

OK   Cancel

Measure: Linear Distance

"Snap" the cursor to select the distance to be measured.

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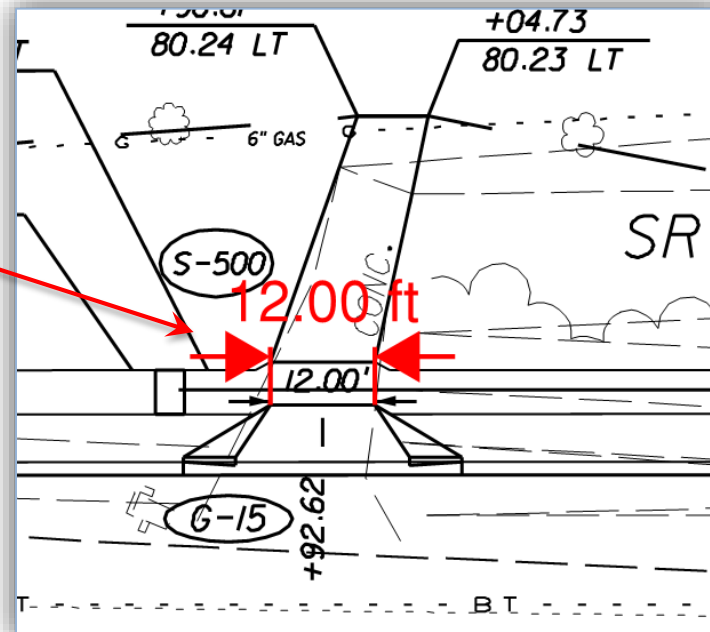
Measure: Area

1. "Snap" the cursor to the area to be measured.

2. Once done, press "Enter".

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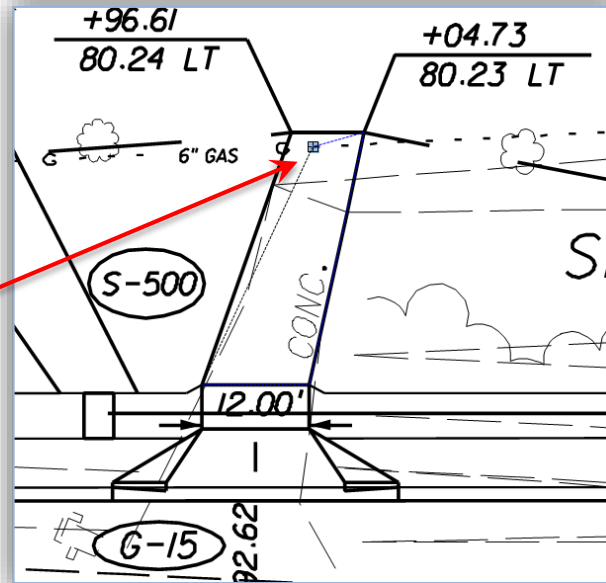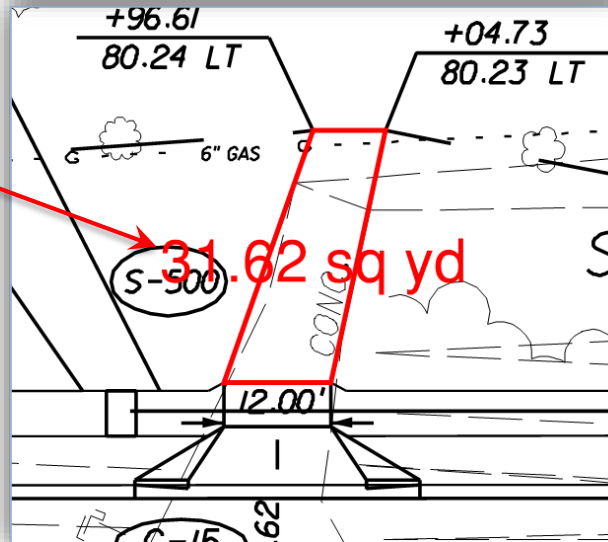
Measure: Area Units

In the Properties Panel:
- Ensure "Independent Units" is checked.
- Can change units and Recalculate.

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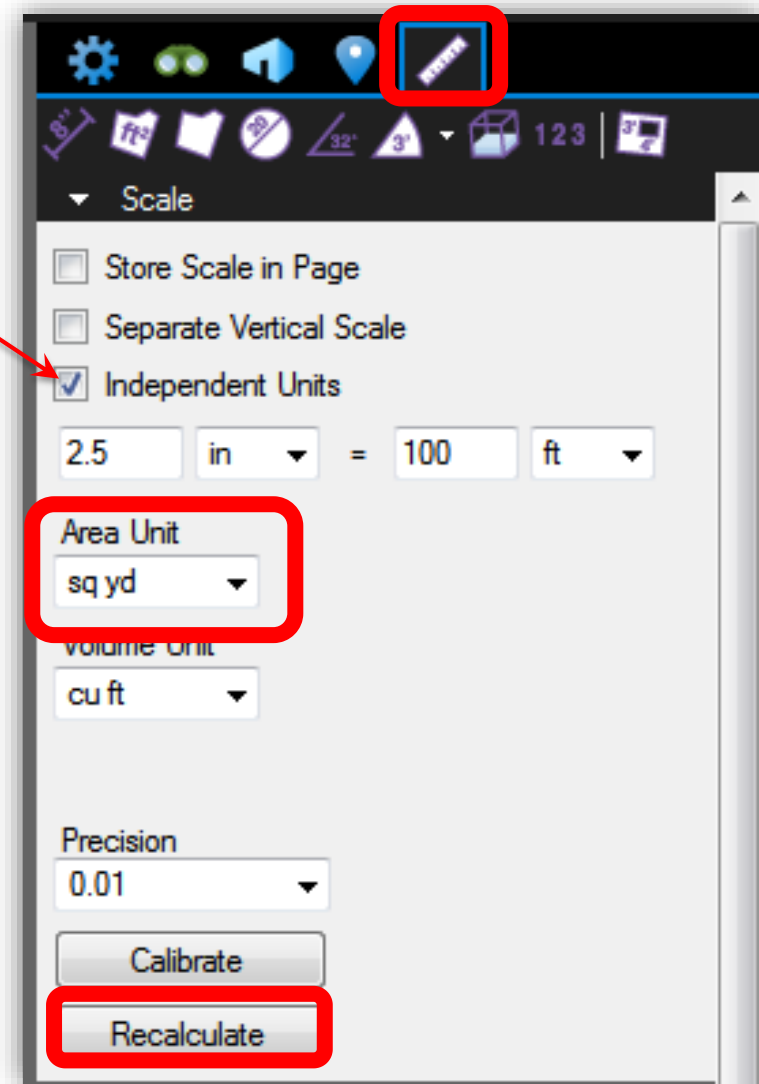
Embed Backup Documentation

This will not insert additional pages into the As-Built Plans. An embedded file will become "part" of the file. It is not an attachment. Will be listed in the Summary of Markups.

Select the File

With the cursor, place the "paperclip" where desired. This is a link to the embedded document.

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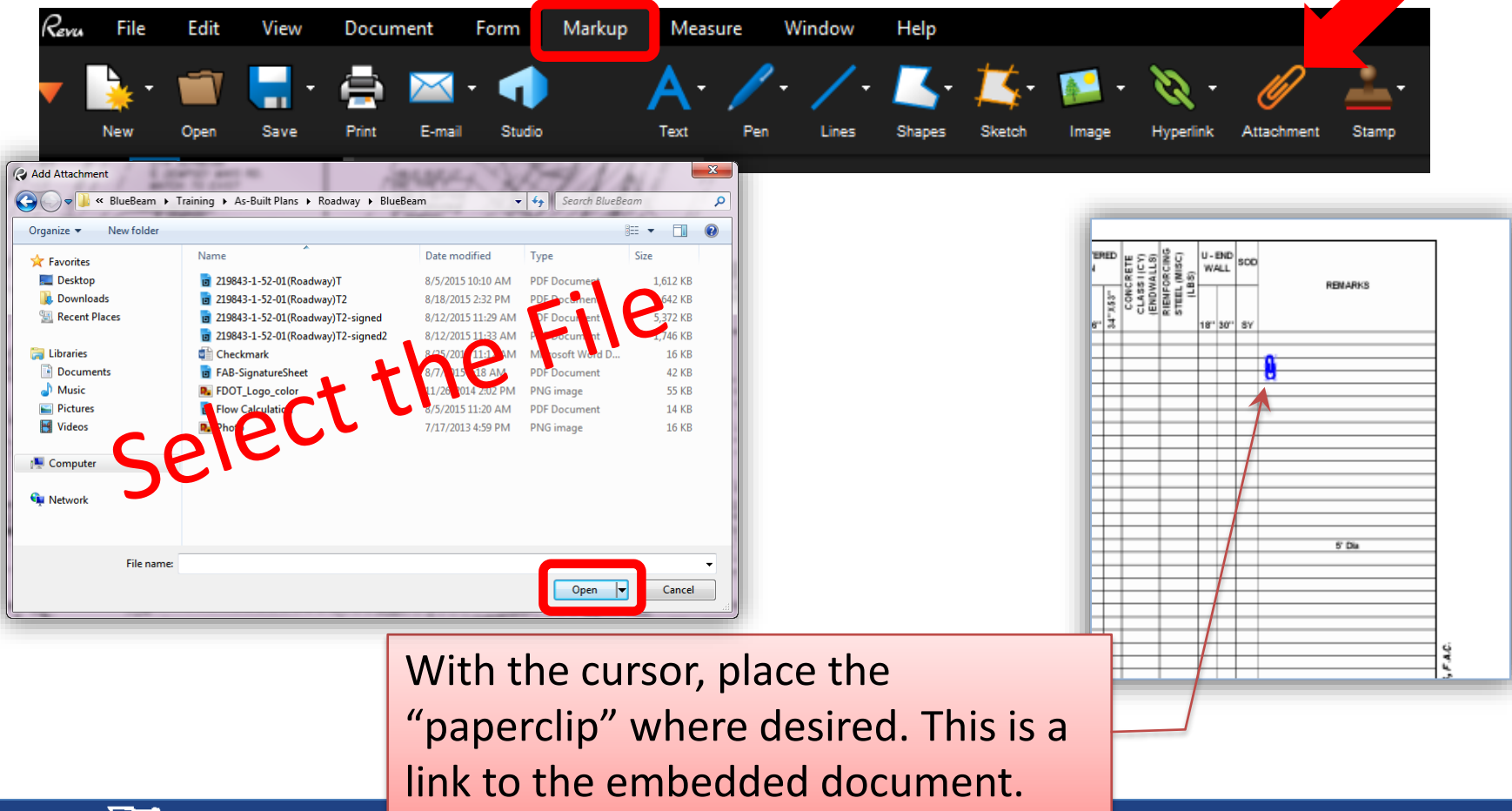
Embed Backup Documentation (Cont.)

Subject

List of embedded files

Open embedded file. Will open in a different tab.

Embed Backup Documentation (Cont.)

Warning:

The "Attachment" option in the Properties panel allows adding a document. However, there will be no link to it and it will not be listed in the Markup panel, making it hard for the reviewer to know that there is a document attached.

DO NOT USE
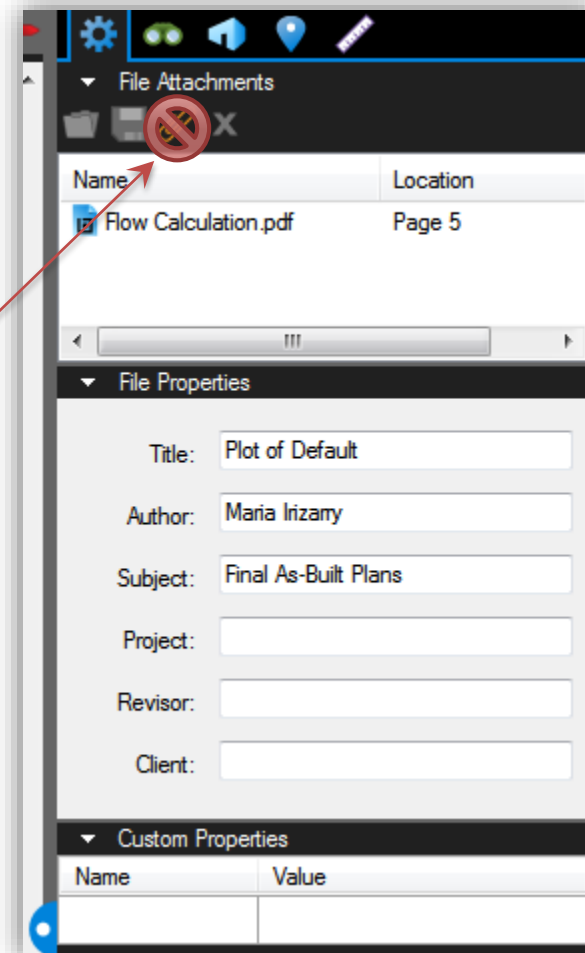
Before Signing and Sealing

- "Flatten" all changes/markups to the Final "As-Built" Plans set before digitally signing and sealing.
    - This protects the changes/markups that the RE is responsible for when digitally signing and sealing the Final "As-Built" Plans set.
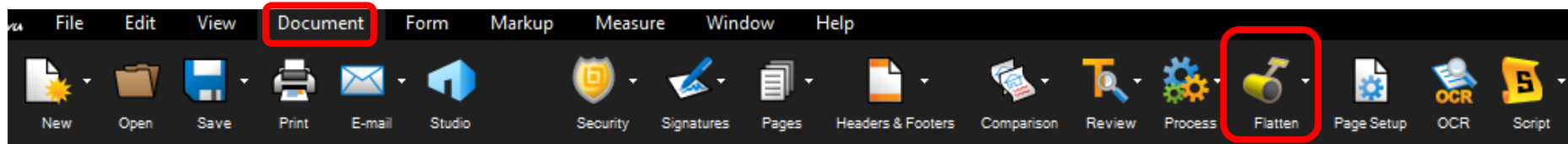
This will allow the RE to "Unflatten" the changes/markups incorporated included in the Final "As-Built" Plans set, before making any changes as directed by the DFEO.
- RE will be able to digitally sign and seal the Final "As-Built" Plans set before resubmitting to the DFEO.
- "Flatten" all markups before signing and sealing (again).
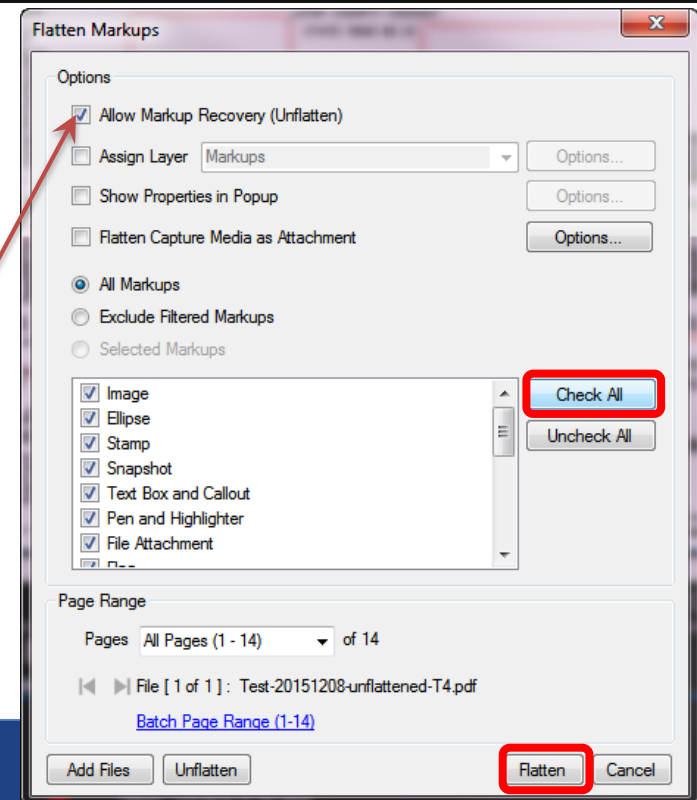
As-Built Signature Sheet

Final "As-Built" Plans Signature Sheets are available for download at:
http://www.dot.state.fl.us/construction/eConstruction/AsBuiltPlans.shtm

		REVISIONS					STATE OF FLORIDA				SHEET NO.
DATE	DESCRIPTION		DATE	DESCRIPTION			DEPARTMENT OF TRANSPORTATION			FINAL "AS-BUILT" SIGNATURE SHEET	
							ROAD NO.	COUNTY	FINANCIAL PROJECT ID		

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Document Certification
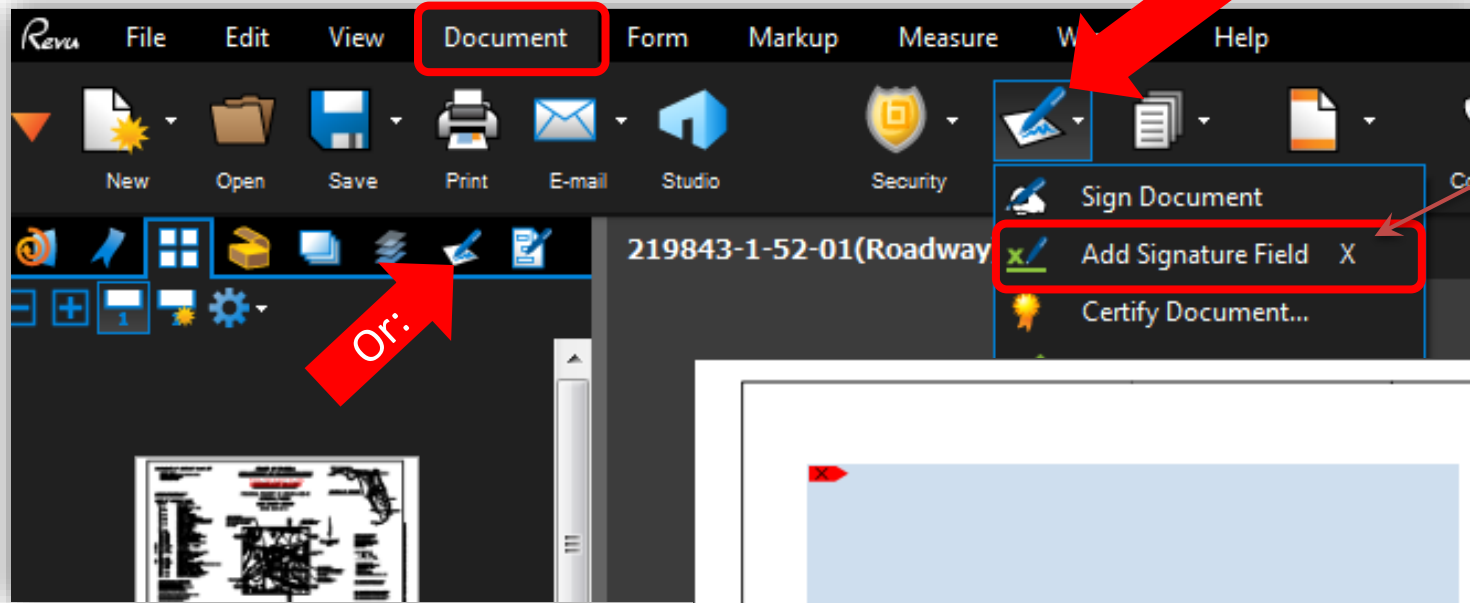
Add one or multiple Signature Fields.

Or:

Sign Document

Add Signature Field   X

Certify Document...

219843-1-52-01(Roadway

Unsigned signature field (Click to sign)
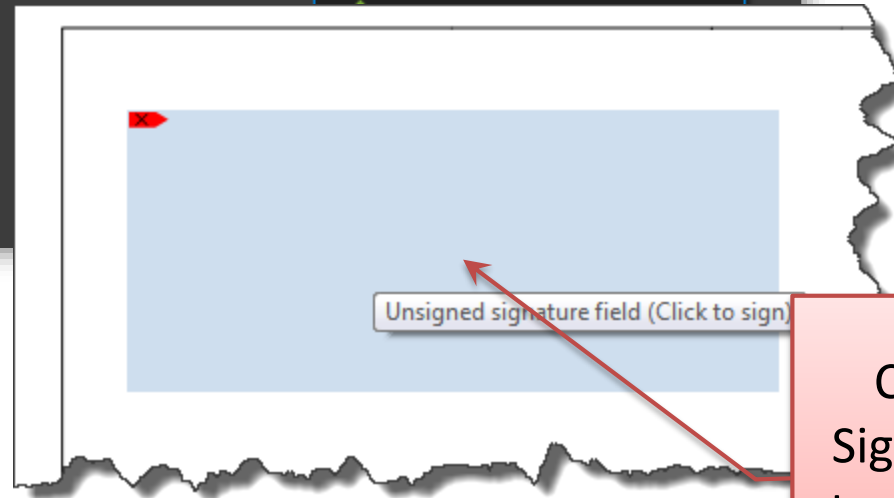
Click in the Signature Field to digitally sign the document.

Or select "Certify Document"

Document Certification (Cont.)

This will allow DFEO personnel to make markups as necessary.

Document Certification (Cont.)

Select "Grant Permission" and enter the Key Protection Password.
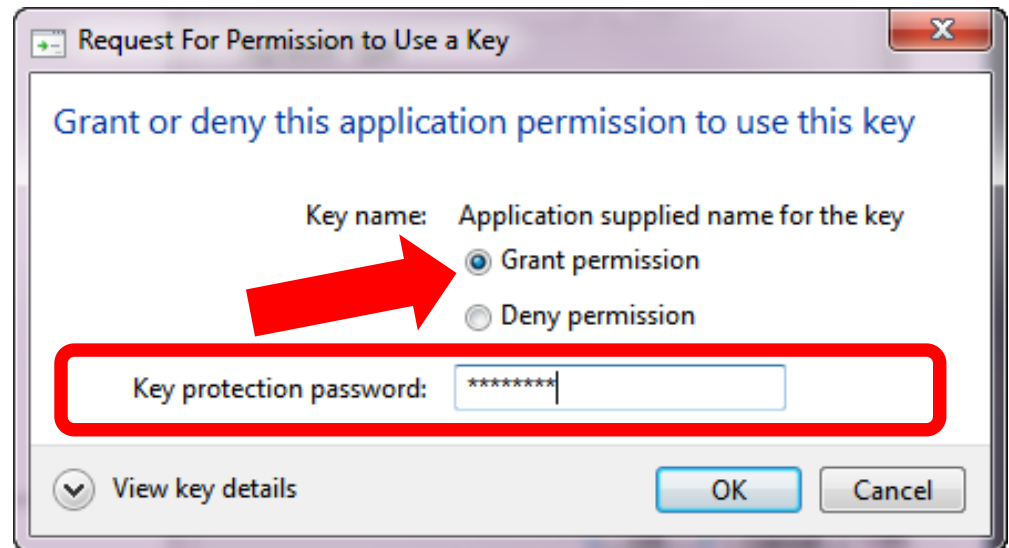
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Document Certification (Cont.)

User will be prompted to Save the file.

As-Built Signature Sheet

- Refer to CPAM 5.12 for requirements.

- **Note:** Green checkmark or yellow ribbon means that the Digital Certificate/Signature has been validated.

Checkmark

- Select the Typewriter
- In the Properties Panel: Change Font to "Windings 2"
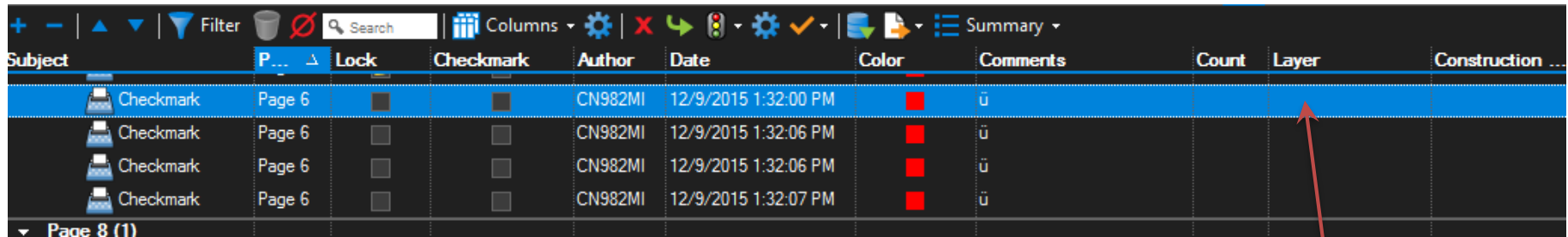- Type the letter P in upper case
- Can be added to "My Tools"

Markup Panel

- All markups are listed in the "Markup Panel".
- Each item on the list is a link to each markup.

Markup Panel: Layers (DFEO ONLY)
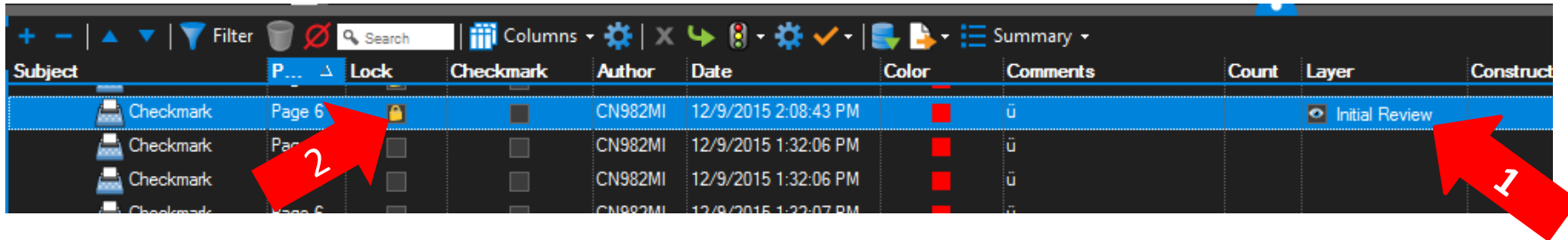
Right-click

For any markups by **DFEO personnel** on digitally signed and sealed Final "As-Builts" Plans:

- Before locking the markup, select the markup from the Markup Panel
- In the "Layer" column: **Right-click**
  - Select "Layer"
  - Select "Initial Review"
- Lock the markup

Markup Panel: Layers (DFEO ONLY) – cont.

- Assigning a "Layer" to markups made by DFEO personnel on digitally signed and sealed Final "As-Built" Plans will allow the RE to correct any findings by the DFEO without altering those markups.
- The RE will be able to sign and seal only what he/she is responsible for. (See slide: ***Before Signing and Sealing***.)
- Original markups by DFEO personnel will not be erased.

Summary of Markups
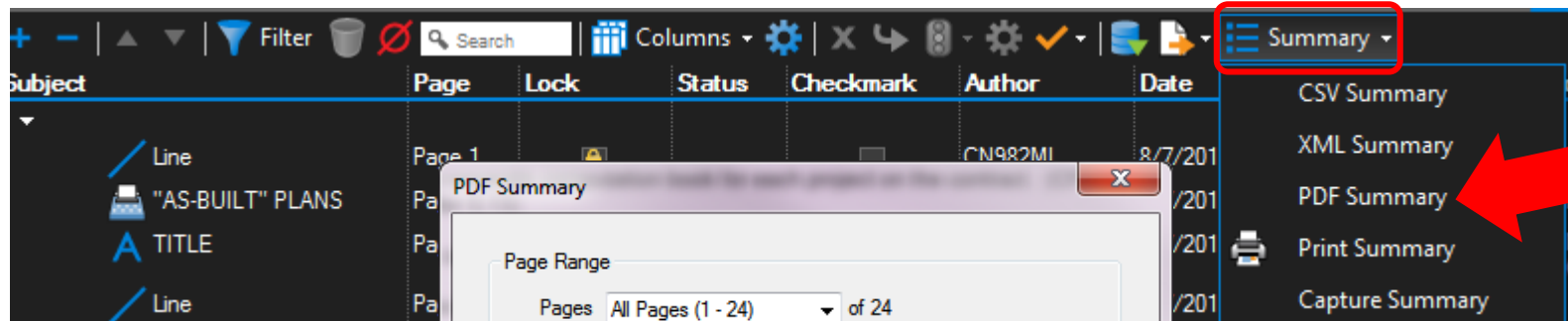
A Summary of markups will be created as a separate PDF file. Check this box **ONLY IF** the Summary of Markups is to be inserted <u>after</u> the last sheet of the Final As-Built Plans.

A Summary of Markups inserted at the end of the current file will include links to each markup for easy navigation through the document.
(It is **not** required to create a Summary of Markups.)

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DFEO

- Use color convention per *CPAM 5.12*
- Validate signature after any markups/changes.
  - A validated signature will have a green checkmark next to it.
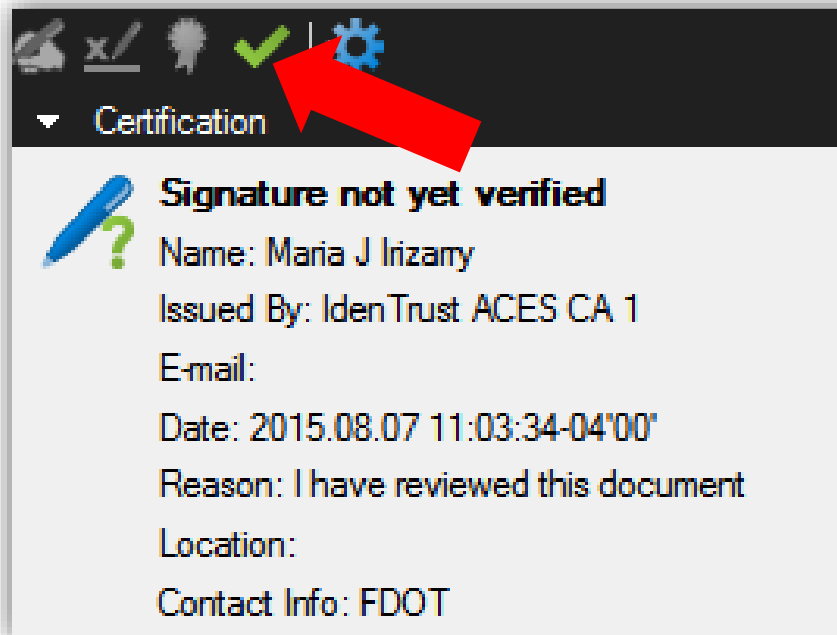
A green "?" indicates that changes have been made to the previously certified document.
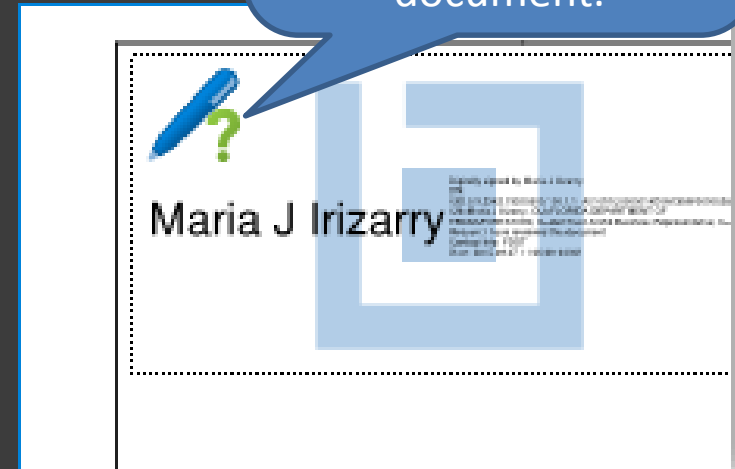
María J. Irizarry, E.I.
Office of Construction
Final Estimates Specialist
Maria.Irizarry@dot.state.fl.us

Sherry Valdes
Office of Construction
Final Estimates Specialist
[Sherry. Valdez@dot.state.fl.us](mailto:Sherry.Valdez@dot.state.fl.us)